

September 5, 2014

## MEMORANDUM

To: Sandra Lyon, SMMUSD Superintendent

From: ENVIRON International Corporation

Re: **Fourth Update on Recent Building Inspection Activities Related to Polychlorinated Biphenyls (PCBs)**

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This fourth and final summer progress report is submitted to the Santa Monica-Malibu Unified School District (SMMUSD or District) to summarize ENVIRON's activities related to building inspections and implementation of Best Management Practices (BMPs), conducted in accordance with the General Plan<sup>1</sup> and the July 3<sup>rd</sup> MHS Specific Plan<sup>2</sup>, at Malibu High School (MHS) and Juan Cabrillo Elementary School (JCES), since June 16, 2014. In addition, we discuss major activities planned for the coming weeks.

Significant progress was made in the weeks leading up to the first day of school. The coming weeks will involve developing a report to conclude the assessments performed this summer. We look forward to continuing to work with you, your staff, the community, and the U.S. Environmental Protection Agency (USEPA) to ensure that the schools satisfy health-based criteria for PCBs established by USEPA.

It is important to note when reviewing the results of the testing conducted at MHS and JCES that the thresholds requested by USEPA for MHS, for both air and surface wipe samples, are more conservative (health protective) than those used by New York City (NYC) Schools in their studies.<sup>3,4,5</sup>

- The air health benchmark for MHS and JCES is 33% to 67% lower, depending on age group for elementary or high school students and faculty. The benchmark for MHS and JCES is 200 ng/m<sup>3</sup> for these populations versus 300 to 600 ng/m<sup>3</sup> for NYC Schools (depending on population age).<sup>6</sup>
- The surface wipe threshold for MHS and JCES is 90% lower than that used by NYC schools. The threshold for MHS and JCES is 1 µg/100 cm<sup>2</sup> versus 10 µg/100 cm<sup>2</sup> for NYC Schools.

ENVIRON's risk assessors and toxicologists have reviewed these benchmarks and thresholds and concur, based on the current science, that they are health protective.

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<sup>1</sup> 2014. Draft *Comprehensive PCB-Related Building Materials Inspection, Management, and Removal Plan*. Prepared for SMMUSD by ENVIRON. April 25. [Accessed here.](#)

<sup>2</sup> 2014. *Site-Specific PCB-Related Building Materials Management, Characterization and Remediation Plan for the Library and Building E Rooms 1, 5, and 8 at Malibu High School*. Prepared for SMMUSD by ENVIRON. July 3. [Accessed here.](#)

<sup>3</sup> 2013. *Summary Report for the New York City School Construction Authority Pilot Study to Address PCB Caulk in New York City School Buildings*. Prepared for New York City School Construction Authority by TRC Engineers, Inc. May 24. [Accessed here.](#)

<sup>4</sup> 2012. *Final Remedial Investigation Report for the New York City School Construction Authority Pilot Study to Address PCB Caulk in New York City School Buildings*. Prepared for New York City School Construction Authority by TRC Engineers, Inc. August 21. [Accessed here.](#)

<sup>5</sup> 2011. *Interim Remedial Investigation Report for the New York City School Construction Authority Pilot Study to Address PCB Caulk in New York City School Buildings*. Prepared for New York City School Construction Authority by TRC Engineers, Inc. June 15. [Accessed here.](#)

<sup>6</sup> Note that a threshold of 100 ng/m<sup>3</sup> is recommended by USEPA for children 3 to less than 6 years old. This threshold was used for the sampled JCES classrooms that are regularly occupied by children less than 6 years old.

## Executive Summary

Key milestones and findings based on the work conducted to date include<sup>7</sup>:

- All nine pre-1981 buildings at MHS—Building J (Building 700, Old Gymnasium), Building A (Building 800, Great White Shark), Building B/C (Building 900, Whale Shark), Building H (Cafeteria/Auditorium), Building E (Blue Shark), Building F (Building 300, Thresher Shark), Building D (Building 100 & 200, Mako Shark), Building G (Building 500, Angel Shark), and Building I (Building 400, Leopard Shark)—have been reopened by the District based on investigation results and findings to date.
  - Currently, the District has conservatively kept Room 506 (woodshop) in Building G closed to teachers and students because this room is undergoing further evaluation. Pre- and post-cleaning air samples in this room were below USEPA's recommended health benchmark of 200 ng/m<sup>3</sup>. A total of 16 surface wipe samples were collected from this room (including before and after cleaning) and all but five samples were either non-detect for PCBs or less than USEPA's recommended threshold of 1 µg/100 cm<sup>2</sup>. The five surface wipe samples with PCB detections greater than 1 µg/100 cm<sup>2</sup> were all collected from interior door caulking surfaces and these results are being evaluated further with USEPA.
- All six pre-1981 buildings at JCES—Building A (Administration), Building B, Building C, Building D, Building E, and Building F—have been reopened by the District based on investigation results and findings to date.
  - Currently, the District has conservatively kept Room 6 (office) in Building C closed to teachers and students because this room is undergoing further evaluation. Pre- and post-cleaning air samples in this room were below USEPA's recommended health benchmark of 200 ng/m<sup>3</sup>. A total of 15 surface wipe samples were collected from this room (including before and after cleaning) and all but four samples were non-detect for PCBs and therefore less than USEPA's recommended threshold of 1 µg/100 cm<sup>2</sup>. PCBs reported in one surface wipe sample above 1 µg/100 cm<sup>2</sup> was collected from caulking adjacent to the sink, but the area was subsequently re-cleaned and sample results after the re-cleaning indicate that surface had a PCB concentration less than 1 µg/100 cm<sup>2</sup>. The other three surface wipe samples were collected from a wall surface near a window and a sink and were above 1 µg/100 cm<sup>2</sup> but less than 10 µg/100 cm<sup>2</sup>. As per Section 1.2.3.2 of the July 3<sup>rd</sup> MHS Specific Plan, ENVIRON is currently in discussions with USEPA on whether further actions are needed given the results and the likely low contact frequency of this surface.
- Many of the pre-1981 buildings tested to date have airborne levels of total PCBs below USEPA's recommended health benchmark of 200 ng/m<sup>3</sup> and surface concentrations of total PCBs below 1 µg/100 cm<sup>2</sup> **before implementation of BMP cleaning**.
  - This includes all of the buildings at JCES<sup>8</sup>, as well as Building E (Blue Shark, which was part of the December 2013 cleaning activities), Building H (Auditorium/Cafeteria), Building D (Mako Shark, 100 and 200 Rooms), and Building I (Building 400, Leopard Shark Building) at MHS.
  - Since pre-cleaning sampling results were below USEPA thresholds, the results would indicate that BMP cleaning was not needed to address any residual PCB concentrations. Despite these

<sup>7</sup> Data are currently undergoing Level III/IV third party data validation, as described in the USEPA Contract Laboratory Program National Functional Guidelines (USEPA 2008).

<sup>8</sup> Note that a threshold of 100 ng/m<sup>3</sup> is recommended by USEPA for children 3 to less than 6 years old. This threshold was used for the sampled JCES classrooms known to be regularly occupied by children older than 3 and less than 6 years old. This applies to certain classrooms in Buildings B (Rooms 1, 2, and 5), C (Room 8), and F (Room 21) that contain either kindergarten or special education classes. Based on known planned use of JCES, classrooms routinely occupied with children older than 3 and less than 6 years old tested to date did not exceed this threshold of 100 ng/m<sup>3</sup> recommended by USEPA.

results, the District proceeded with BMP cleaning of these buildings. ENVIRON also continued with its post-cleaning sampling investigation in these buildings.

- Airborne levels of PCBs in all sampled rooms (62 pre-cleaning samples and 101 post-cleaning sample results to date) are either not detected or less than USEPA's recommended health benchmark of 200 ng/m<sup>3</sup> (or 100 ng/m<sup>3</sup> benchmark for regularly occupied classrooms with children aged 3 to less than 6 years old)<sup>8</sup>, except one pre-cleaning sample in Room 303 in Building F (Building 300, Thresher Shark).<sup>9</sup> The post BMP-cleaning air sample in Room 303 was non-detect for PCBs.
- Pre-cleaning (pre-BMP) surface wipe sample results (136 pre-cleaning samples and 368 post-cleaning sample results to date) indicate that nearly 78 percent (%) of the pre-cleaning samples are below the detection limit and another 16% of pre-cleaning samples have total PCB concentrations that are below USEPA's recommended threshold of 1 µg/100 cm<sup>2</sup>. Nearly 90% of the initial (before any re-cleaning) post-cleaning samples are below the detection limit and another 7% of initial post-cleaning samples have total PCB concentrations that are below USEPA's recommended threshold of 1 µg/100 cm<sup>2</sup>.
- ENVIRON has completed the inspections of all pre-1981 buildings at MHS and JCES.
- The District has made significant progress implementing the BMPs described in the General Plan in pre-1981 school buildings at MHS and JCES. HVAC cleaning has been completed in all pre-1981 school buildings and the annual BMP cleaning has been completed in all regularly occupied rooms, and is ongoing for the remaining low-occupancy rooms in most pre-1981 buildings.

### **Additional Information on Key Work Conducted Since June 16**

While USEPA reviews the July 3<sup>rd</sup> plan for MHS Library, and Blue Shark Building Rooms 1, 5, and 8 (MHS Specific Plan), important work on both MHS and JCES campuses has been proceeding. In addition to preparation of the General Plan and MHS Specific Plan for USEPA, our work since we commenced onsite activities on June 16, 2014, has included the following:

#### **Building Inspections**

- ENVIRON has conducted building inspections in all pre-1981 buildings at MHS and JCES per Section 2 of our General Plan to inventory building materials that may potentially have been impacted by PCBs.
- During the inspections, ENVIRON documented the types, locations, and conditions of materials that could potentially have been impacted by PCBs.
- Following careful and rigorous inspections of all of the rooms at the two campuses, ENVIRON noted evidence of past ballast leaks that the SMMUSD is currently taking action on as previously described in our July 11, 2014 update, [click here](#).

#### **BMPs – Annual Cleaning**

- The District has been implementing the BMPs described in the General Plan in pre-1981 school buildings.

<sup>9</sup> The one result above USEPA's threshold is in a room where built-in orchestra risers (building materials) were removed with damage to surrounding building materials just prior to the start of investigation even though District Facility's staff had requested that the school and parents not remove these building materials until after the planned summer investigation. It is likely that this activity impacted the results seen in this room. Thus, this finding is not typical of conditions in any other rooms at MHS or JCES.

- Annual HVAC cleaning has been completed in all pre-1981 school buildings.
- Annual BMP cleaning has been completed in all pre-1981 school buildings except for some low occupancy rooms (e.g., electrical rooms) in most pre-1981 buildings, in which cleaning is ongoing.

### **BMPs – Air and Wipe Sampling MHS Pilot Study on BMPs**

- ENVIRON is conducting a sampling pilot study on BMPs as described in our [July 3<sup>rd</sup> MHS Specific Plan](#), and with USEPA concurrence.
- ENVIRON has collected pre-cleaning (pre-BMP) and post-cleaning (post-BMP) air and surface wipe samples in all pre-1981 buildings at MHS and JCES. Preliminary results for all buildings are currently available.
- Overall across all pre-1981 buildings, approximately 40% of regularly occupied rooms (e.g., classrooms and offices) have been sampled before cleaning. Post-cleaning sampling was completed on approximately 60% of regularly occupied rooms.
- Preliminary review and analysis of air sample results<sup>10</sup> collected before and after BMP cleaning indicates that airborne levels of PCBs in the sampled rooms are either not detected or below USEPA's recommended health benchmark of 200 ng/m<sup>3</sup> (or 100 ng/m<sup>3</sup> benchmark for regularly occupied classrooms with children aged 3 to less than 6 years old)<sup>8</sup> in all samples, except a pre-BMP cleaning sample in Room 303 in Building F (Building 300, Thresher Shark Building).<sup>9</sup> The post BMP-cleaning air sample in Room 303 was non-detect for PCBs.

<b>Preliminary (Un-Validated<sup>10</sup>) Air Sampling Results To Date</b>						
<b>School</b>	<b>Building</b>	<b>BMP Cleaning</b>	<b>Number of Indoor Samples</b>	<b>Below Detection Limit (DL)<sup>11</sup></b>	<b>Above DL and Below 200 ng/m<sup>3</sup></b>	<b>Above 200 ng/m<sup>3</sup></b>
MHS	Building J (Old Gym)	Pre-BMP	6	2	4 (max: 110 ng/m <sup>3</sup> )	None
		Post-BMP	7	2	5 (max: 180 ng/m <sup>3</sup> )	None
MHS	Building A (Great White Shark)	Pre-BMP	4	4	None	None
		Post-BMP	4	1	3 (max: 92 ng/m <sup>3</sup> )	None
MHS	Building B/C (Whale Shark)	Pre-BMP	3	2	1 (84 ng/m <sup>3</sup> )	None
		Post-BMP	7	1	6 (max: 83 ng/m <sup>3</sup> )	None

<sup>10</sup> Data are currently undergoing Level III/IV third party data validation, as described in the USEPA Contract Laboratory Program National Functional Guidelines (USEPA 2008).

<sup>11</sup> The laboratory reporting limit for the samples in this table ranges from 64 ng/m<sup>3</sup> to 75 ng/m<sup>3</sup>.

Preliminary (Un-Validated <sup>10</sup> ) Air Sampling Results To Date						
School	Building	BMP Cleaning	Number of Indoor Samples	Below Detection Limit (DL) <sup>11</sup>	Above DL and Below 200 ng/m <sup>3</sup>	Above 200 ng/m <sup>3</sup>
MHS	Building H (Cafeteria/Auditorium)	Pre-BMP	3	3	None	None
		Post-BMP	5	5	None	None
MHS	Building F (Thresher Shark)	Pre-BMP	6	2	3 (max: 85 ng/m <sup>3</sup> )	1 (480 ng/m <sup>3</sup> ) <sup>9</sup>
		Post-BMP	9	5	4 (max: 150 ng/m <sup>3</sup> )	None
MHS	Building E (Blue Shark)	Pre-BMP	12	11	1 (82 ng/m <sup>3</sup> )	None
		Post-BMP	14	12	2 (max: 84 ng/m <sup>3</sup> )	None
MHS	Building D (Mako Shark – 100 Rooms)	Pre-BMP	7	6	1 (110 ng/m <sup>3</sup> )	None
		Post-BMP	10	9	1 (110 ng/m <sup>3</sup> )	None
MHS	Building D (Mako Shark – 200 Rooms)	Pre-BMP	4	4	None	None
		Post-BMP	8	8	None	None
MHS	Building I (Leopard Shark)	Pre-BMP	1	1	None	None
		Post-BMP	4	4	None	None
MHS	Building G (Angel Shark)	Pre-BMP	5	3	2 (max: 170 ng/m <sup>3</sup> )	None
		Post-BMP	4	2	2 (max: 150 ng/m <sup>3</sup> )	None
JCES	Building A	Pre-BMP	1	1	None	None
		Post-BMP	3	3	None	None
JCES	Building B <sup>8</sup>	Pre-BMP	3	3	None	None
		Post-BMP	7	7	None	None
JCES	Building C <sup>8</sup>	Pre-BMP	2	1	1 (Office: 120 ng/m <sup>3</sup> ) <sup>12</sup>	None
		Post-BMP	5	4	1 (Office: 110 ng/m <sup>3</sup> ) <sup>12</sup>	None
JCES	Building D	Pre-BMP	1	1	None	None
		Post-BMP	2	2	None	None

<sup>12</sup> PCBs were detected in the pre-cleaning and post-cleaning air samples in Room 6 with concentrations of 120 ng/m<sup>3</sup> and 110 ng/m<sup>3</sup>, respectively. Room 6 is not regularly occupied by children ages 3 to less than 6 years old.



Preliminary (Un-Validated <sup>10</sup> ) Air Sampling Results To Date						
School	Building	BMP Cleaning	Number of Indoor Samples	Below Detection Limit (DL) <sup>11</sup>	Above DL and Below 200 ng/m <sup>3</sup>	Above 200 ng/m <sup>3</sup>
JCES	Building E	Pre-BMP	1	1	None	None
		Post-BMP	3	3	None	None
JCES	Building F <sup>8</sup>	Pre-BMP	3	1	2 (max: 120 ng/m <sup>3</sup> ) <sup>13</sup>	None
		Post-BMP	9	6	3 (max: 160 ng/m <sup>3</sup> ) <sup>14</sup>	None

- Preliminary review and analysis of all pre-BMP surface wipe sample results indicates that nearly 78% of the pre-cleaning samples are below the detection limit and another 16% of pre-cleaning samples have total PCB concentrations that are below USEPA's recommended threshold of 1 µg/100 cm<sup>2</sup>. Nearly 90% of the initial (before any re-cleaning) post-cleaning samples are below the detection limit and another 7% of post-cleaning samples have total PCB concentrations that are below USEPA's recommended threshold of 1 µg/100 cm<sup>2</sup>.

Preliminary (Un-Validated <sup>10</sup> ) Surface Wipe Sampling Results To Date						
School	Building	BMP Cleaning	Number of Samples	Below Detection Limit (DL) <sup>15</sup>	Above DL and Below 1 µg/100 cm <sup>2</sup>	Above 1 µg/100 cm <sup>2</sup>
MHS	Building J (Old Gym)	Pre-BMP	14	13	None	1 (40 µg/100 cm <sup>2</sup> ) <sup>16</sup>
		Post-BMP	27	23	3 (max: 0.27 µg/100 cm <sup>2</sup> )	1 (6.5 µg/100 cm <sup>2</sup> ) <sup>17</sup>
		Post-BMP <sup>18</sup>	1	1	None	None
MHS	Building A (Great White Shark)	Pre-BMP	6	5	None	1 (1.8 µg/100 cm <sup>2</sup> )
		Post-BMP	16	16	None	None

<sup>13</sup> The two air samples with detections of PCBs had reported concentrations of 120 ng/m<sup>3</sup>. These air samples—which were collected from Room 19 and Room 23—were collected from rooms that are not regularly occupied by children ages 3 to less than 6 years old.

<sup>14</sup> The three air samples with detections of PCBs had reported concentrations of 88 ng/m<sup>3</sup> (Room 19), 110 ng/m<sup>3</sup> (Room 23), and 160 ng/m<sup>3</sup> (Room 22). These rooms are not regularly occupied by children ages 3 to less than 6 years old.

<sup>15</sup> The laboratory reporting limit for all but two surface wipe samples in Building G ranges from 0.1 µg/100 cm<sup>2</sup> to 0.2 µg/100 cm<sup>2</sup>. The other two surface wipe samples, which were collected on door caulking in Room 506, had method reporting limits of 1.0 µg/100 cm<sup>2</sup> and 10 µg/100 cm<sup>2</sup> due to sample dilutions.

<sup>16</sup> Pre-cleaning and post-cleaning wipe samples were taken on window caulk that was damaged (both samples were taken at the same location). This area was re-cleaned and repaired by SMMUSD in accordance with the July 3<sup>rd</sup> MHS Specific Plan.

<sup>17</sup> After additional cleaning per the protocol, the wipe result was below the detection limit.

<sup>18</sup> Results for sampling after re-cleaning and repairs to window caulking.

<b>Preliminary (Un-Validated<sup>10</sup>) Surface Wipe Sampling Results To Date</b>						
<b>School</b>	<b>Building</b>	<b>BMP Cleaning</b>	<b>Number of Samples</b>	<b>Below Detection Limit (DL)<sup>15</sup></b>	<b>Above DL and Below 1 µg/100 cm<sup>2</sup></b>	<b>Above 1 µg/100 cm<sup>2</sup></b>
MHS	Building B/C (Whale Shark)	Pre-BMP	8	6	1 (0.85 µg/100 cm <sup>2</sup> )	1 (1.1 µg/100 cm <sup>2</sup> )
		Post-BMP	26	20	2 (max: 0.28 µg/100 cm <sup>2</sup> )	4 (max: 2.2 µg/100 cm <sup>2</sup> ) <sup>19</sup>
		Post-BMP <sup>20</sup>	11	6	5 (max: 0.62 µg/100 cm <sup>2</sup> )	None
MHS	Building H (Cafeteria/Auditorium)	Pre-BMP	6	6	None	None
		Post-BMP	19	16	3 (max: 0.56 µg/100 cm <sup>2</sup> )	None
MHS	Building F (Thresher Shark)	Pre-BMP	11	2	5 (max: 0.99 µg/100 cm <sup>2</sup> )	4 (max: 2.7 µg/100 cm <sup>2</sup> )
		Post-BMP	33	26	6 (max: 0.60 µg/100 cm <sup>2</sup> )	1 (1.1 µg/100 cm <sup>2</sup> ) <sup>21</sup>
		Post-BMP <sup>22</sup>	5	4	1 (0.30 µg/100 cm <sup>2</sup> )	None
MHS	Building E (Blue Shark)	Pre-BMP	31	31	None	None
		Post-BMP	56	53	3 (max: 0.74 µg/100 cm <sup>2</sup> )	None
MHS	Building D (Mako Shark – 100 Rooms)	Pre-BMP	17	8	9 (max: 0.42 µg/100 cm <sup>2</sup> )	None
		Post-BMP	26	25	1 (max: 0.15 µg/100 cm <sup>2</sup> )	None
MHS	Building D (Mako Shark – 200 Rooms)	Pre-BMP	6	6	None	None
		Post-BMP	21	21	None	None
MHS	Building I (Leopard Shark)	Pre-BMP	2	1	1 (0.31 µg/100 cm <sup>2</sup> )	None
		Post-BMP	12	9	3 (max: 0.28 µg/100 cm <sup>2</sup> )	None

<sup>19</sup> After additional cleaning per the protocol, the wipe results were below 1 µg/100 cm<sup>2</sup>.

<sup>20</sup> Results for sampling after re-cleaning.

<sup>21</sup> After additional cleaning per the protocol, the wipe results were below 1 µg/100 cm<sup>2</sup>.

<sup>22</sup> Results for sampling after re-cleaning.

Preliminary (Un-Validated <sup>10</sup> ) Surface Wipe Sampling Results To Date						
School	Building	BMP Cleaning	Number of Samples	Below Detection Limit (DL) <sup>15</sup>	Above DL and Below 1 $\mu\text{g}/100\text{ cm}^2$	Above 1 $\mu\text{g}/100\text{ cm}^2$
MHS	Building G (Angel Shark)	Pre-BMP	13	6	6 (max: 0.67 $\mu\text{g}/100\text{ cm}^2$ )	1 (71 $\mu\text{g}/100\text{ cm}^2$ )
		Post-BMP	13	10	2 (max: 0.84 $\mu\text{g}/100\text{ cm}^2$ )	1 (62 $\mu\text{g}/100\text{ cm}^2$ )
		Post-BMP <sup>23</sup>	7	2	2 (max: 0.20 $\mu\text{g}/100\text{ cm}^2$ )	3 (max: 94 $\mu\text{g}/100\text{ cm}^2$ )
JCES	Building A	Pre-BMP	2	2	None	None
		Post-BMP	8	8	None	None
JCES	Building B	Pre-BMP	5	5	None	None
		Post-BMP	21	20	1 (0.13 $\mu\text{g}/100\text{ cm}^2$ )	None
JCES	Building C	Pre-BMP	4	4	None	None
		Post-BMP	18	17	None	1 (1.8 $\mu\text{g}/100\text{ cm}^2$ ) <sup>24</sup>
		Post-BMP <sup>25</sup>	3	2	None	1 (5.6 $\mu\text{g}/100\text{ cm}^2$ )
		Post-BMP <sup>26</sup>	8	6	None	2 (max: 2.6 $\mu\text{g}/100\text{ cm}^2$ )
JCES	Building D	Pre-BMP	2	2	None	None
		Post-BMP	6	6	None	None
JCES	Building E	Pre-BMP	3	3	None	None
		Post-BMP	8	8	None	None
JCES	Building F	Pre-BMP	6	6	None	None
		Post-BMP	23	23	None	None

- The following buildings did not require further actions based on initial post-cleaning results: MHS Buildings A, D, E, H, and I and JCES Buildings A, B, D, E, and F
- Post-cleaning results that required further actions in accordance with Appendix D of the July 3<sup>rd</sup> MHS Specific Plan include the following:
  - One pre-cleaning surface wipe sample collected on window caulking at MHS in Building J (Room 722) had a total PCB concentration that was above USEPA's recommended threshold

<sup>23</sup> Results for sampling after re-cleaning and repairs to door caulking. The three surface wipe samples with PCB concentrations above 1  $\mu\text{g}/100\text{ cm}^2$  were all collected from interior door caulking in Room 506.

<sup>24</sup> The one surface wipe sample with a PCB concentration above 1  $\mu\text{g}/100\text{ cm}^2$  was collected from caulking near a sink. The caulking was subsequently cleaned and re-tested, with re-testing results non-detect for PCBs.

<sup>25</sup> Results for sampling after re-cleaning. The one surface wipe sample with a PCB concentration above 1  $\mu\text{g}/100\text{ cm}^2$  was collected from textured wallpaper in Room 6.

<sup>26</sup> Results for sampling after second round of re-cleaning. The two surface wipe samples with a PCB concentration above 1  $\mu\text{g}/100\text{ cm}^2$  were collected from textured wallpaper in Room 6.



- MHS Building E Room 1 was identified by PEER and Malibu Unites as a room with elevated concentrations of PCBs in dirt. The pre- and post-cleaning air sample results for this room (maximum: 84 ng/m<sup>3</sup>) are below USEPA's benchmark and the eight wipe samples in this room are non-detect for PCBs.
- MHS Building E Room 2 was identified by PEER and Malibu Unites as a room with elevated concentrations of PCBs in dirt. The pre- and post-cleaning air sample results for this room as well as the eight wipe samples in this room are non-detect for PCBs.
- MHS Building G Room 506 was identified by PEER and Malibu Unites as a room with elevated concentrations of PCBs in caulk. The pre- and post-cleaning air sample results for this room as well as most of the wipe samples in this room are below the USEPA threshold; three wipe samples near interior doors remain above the USEPA threshold after re-cleaning. This room is currently undergoing further evaluation, as discussed above.
- JCES Building F Room 19 was identified by PEER and Malibu Unites as a room with high concentrations of PCBs in caulk. The pre- and post-cleaning air sample results for this room are below USEPA's benchmark and the five wipe samples in this room are non-detect for PCBs.

### **Summary of Key Work Planned Over the Coming Weeks**

Our key planned activities over the coming weeks include the following:

- The District will continue to implement BMP annual cleaning for the remaining low-occupancy rooms in pre-1981 buildings across both campuses. The District will continue with weekly and monthly BMP cleaning as per the July 3<sup>rd</sup> MHS Specific Plan.
- ENVIRON and the District will further evaluate, in conjunction with USEPA, MHS Building G Room 506 (woodshop) and JCES Building C Room 6 (office), which have a few post-cleaning wipe sample results above USEPA's recommended threshold of 1 µg/100 cm<sup>2</sup> as discussed above.
- ENVIRON will provide data validation reports to the District in building groups (all pre- and post-cleaning results together) when available.
- As data validation efforts are completed, ENVIRON will start preparing a report summarizing inspection observations, sampling locations and results, and conclusions as per our July 3<sup>rd</sup> MHS Specific Plan. The report will be posted on the District's website once it is complete. Schedule depends on receipt of the final data validation reports.

Thank you for your attention to these matters.

of 1  $\mu\text{g}/100\text{ cm}^2$ , but this area was repaired, re-cleaned then re-tested, with re-testing results indicating a total PCB concentration below USEPA's recommended threshold.

- One pre-cleaning surface wipe sample and four post-cleaning wipe samples in Building B/C (Building 900, Whale Shark) had total PCB concentrations above USEPA's recommended threshold of 1  $\mu\text{g}/100\text{ cm}^2$ . The post-cleaning sample results were in less accessed areas (window sills and top of a bookshelf) in the Attendance and Principal offices. The number of post-cleaning samples (26) was larger than the pre-cleaning samples (8). The sampled areas that have total PCB concentrations above the threshold were re-cleaned and re-tested with results below the USEPA threshold.
- Four pre-cleaning surface wipe samples (window sills in Rooms 301 and 303 and wood surfaces in Rooms 301C and 303) collected in Building F were above the USEPA threshold. Those areas were re-cleaned and tested with re-testing results indicating that those areas have total PCB concentrations below USEPA's recommended threshold.
- A total of 16 surface wipe samples were collected from Room 506 (woodshop) in Building G (Building 500, Angel Shark) (including before and after cleaning) and all but five samples were either non-detect for PCBs or less than USEPA's recommended threshold of 1  $\mu\text{g}/100\text{ cm}^2$ . The five surface wipe samples with PCB detections greater than 1  $\mu\text{g}/100\text{ cm}^2$  were all collected from interior door caulking surfaces and the results are being evaluated further with USEPA. Currently, the District has conservatively kept Room 506 (woodshop) in Building G closed to teachers and students because this room is undergoing further evaluation.
- A total of 15 surface wipe samples were collected from Room 6 in Building C at JCES (including before and after cleaning) and all but four samples were non-detect for PCBs and therefore less than USEPA's recommended threshold of 1  $\mu\text{g}/100\text{ cm}^2$ . PCBs reported in one surface wipe sample above 1  $\mu\text{g}/100\text{ cm}^2$  was collected from caulking adjacent to the sink, but the area was subsequently re-cleaned and sample results after the re-cleaning indicate that surface had a PCB concentration less than 1  $\mu\text{g}/100\text{ cm}^2$ . The other three surface wipe samples were collected from a wall surface near a window and a sink and were above 1  $\mu\text{g}/100\text{ cm}^2$  but less than 10  $\mu\text{g}/100\text{ cm}^2$ . As per section 1.2.3.2 of the July 3rd MHS Specific Plan, ENVIRON is currently in discussions with USEPA on whether further actions are needed given the results and the low contact frequency of this surface. Currently, the District has conservatively kept Room 6 (office) in Building C closed to teachers and students because this room is undergoing further evaluation.

### **BMPs – PEER's Reported Sampled Rooms**

- ENVIRON's testing has included rooms reported by PEER and Malibu Unites as having unverified<sup>27</sup> elevated PCB concentrations in caulk and air vent "dirt". ENVIRON's sampling results from the rooms with the four interior samples described by PEER in their July 17<sup>th</sup> memorandum<sup>28</sup> are summarized below:

<sup>27</sup> In a July 23, 2014 email from ENVIRON to Kurt Fehling, Jennifer DeNicola of Malibu Unites, and Paula Dinerstein of PEER, ENVIRON requested additional information and clarification on the sampling conducted by Malibu Unites/PEER that was missing, not readily discernible, or apparent from the materials provided by them to date. This included missing sample location information, any photos of sampled areas, a complete chain of custody, and missing but cited third party validation report. ENVIRON has not received a response to date.

<sup>28</sup> Public Employees for Environmental Responsibility (PEER), *Malibu Unites and Public Employees for Environmental Responsibility's Comments on ENVIRON's "Site-Specific PCB-Related Building Materials Management, Characterization and Remediation Plan"* July 17, 2014. [Accessed here](#).